

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, DC 20554

In the Matter of	)	
	)	
Amendment of the Commission's Rules with	)	
	)	GN Docket No. 12-354
Regard to Commercial Operations in the 3550-	)	
3650 MHz Band	)	

**REPLY COMMENTS OF THE  
AMERICAN PETROLEUM INSTITUTE**

The Telecommunications Subcommittee of the American Petroleum Institute ("API"), by its undersigned counsel, hereby submits Reply Comments supporting the Commission's proposal to allocate spectrum in the 3550-3650 MHz band to a new Citizens Broadband Service for fixed and mobile broadband use.<sup>1</sup> As stated herein, API urges the Commission to include oil and gas industry exploration, production, transportation and refining facilities in the Priority Access Tier for the 3550-3650 MHz band and to ensure that any transition of the existing 3650-3700 MHz band to the Citizens Broadband Service protects the investments of existing licensees. API also agrees with comments that recommend the protection of C-Band satellite facilities in the Gulf of Mexico.

**I. BACKGROUND**

API is a national trade association representing more than 500 companies involved in all phases of the petroleum and natural gas industries, including exploration, production, refining, marketing and transportation of petroleum, petroleum products and natural gas. Among its many

---

<sup>1</sup> *Amendment of the Commission's Rules with Regard to Commercial Operations in the 3550-3650 MHz Band* Notice of Proposed Rulemaking and Order, GN Docket No. 12-354, 2012 WL 6463547 (Dec. 12, 2012).

activities, API acts on behalf of its members before federal and state regulatory agencies. The API Telecommunications Subcommittee evaluates and develops responses to state and federal proposals affecting telecommunications facilities used in the oil and gas industries. API is supported and sustained by companies that make use of a wide variety of wireline, wireless and satellite communications services on both a private and commercial basis. API member companies are authorized by the Commission to operate facilities in the Private Land Mobile Radio (“PLMR”) service and Private Operational-Fixed Microwave Services (“POFS”), among other telecommunications systems. Spectrum is used for communications with remote oil and gas exploration and production sites for voice and data applications, communications with refineries, the extension of circuits to remote pipeline pump and compressor stations, and supervisory control and data acquisition systems (“SCADA”) that remotely monitor and control oil and gas wells, pipeline operations and other facilities.

API’s members increasingly are moving towards broadband and IP-enabled applications. API member companies are utilizing the Commission’s “hybrid” licensed/unlicensed 3650-3700 MHz (“3.65 GHz”) band for higher speed point-to-multipoint mission critical IP-based applications such as voice, data, and SCADA necessary to support, monitor, control and secure the nation’s pipeline and plant infrastructure. Due to the importance of such systems, API was an active participant in the Commission’s rule making proceeding regarding the use of the 3.65 GHz band. In fact, once the 3.65 GHz band was made available by the FCC in November 2007, an API member company was the first entity issued a license by the Commission to operate in the band.

The 3.65 GHz band is the only site-based licensed band available for higher speed point-to-multipoint private internal communications. For that the reason, the band increasingly has

become an important option for the oil and natural gas industry. API strongly supports the Commission's proposal to allocate an additional 100 MHz of spectrum in the nearby 3550-3650 GHz band for broadband services and envisions that band will become valuable for applications in the energy industry.

**II. API Supports the Commission's Proposal for a Multi-Tiered Licensing Approach for the 3550-3650 MHz band and Urges the Commission to Include Oil and Gas Companies in the Priority Access Tier.**

The Commission has proposed a unique paradigm whereby the 3550-3650 MHz band would be licensed by rule as a new Citizens Broadband Service under a multi-tiered framework consisting of an Incumbent Access tier, a Priority Access tier, and a General Authorized Access tier. Similar to the TV White Space service, a Spectrum Access System database would manage access and dynamic frequency assignment.

Incumbent Access tier users (federal and grandfathered Fixed Satellite Service licensees) would be protected from harmful interference through Incumbent Use Zones, within which users in the Priority Access and General Authorized Access tiers would be prohibited from operating.

General Access tier operations would be open to the general public on the condition that such users may not cause harmful interference to, and must accept harmful interference from, users in the other two tiers. The Commission envisions, for example, that Wireless Internet Service Providers and their customers would fall into this category.

Priority Access tier users would be permitted to operate only in geographic zones with no likelihood of harmful interference from, and no expectation of harmful interference to, users in the Incumbent Access tier, but would be protected from harmful interference from General Authorized Access tier users. In addition, eligibility for the Priority Access tier would be

available only to “certain users with critical quality-of-service needs.” The Commission suggests that Priority Access tier eligibility include “hospitals, utilities, state and local governments, and/or other users with a distinct need for reliable, prioritized access to broadband spectrum at specific, localized facilities.”

API welcomes the Commission’s proposal to include a Priority Access tier for the 3550-3650 MHz band. Although the 3.65 GHz band has become a useful tool for the oil and natural gas industry, any protection from interference available to licensees is largely limited to the use of contention-based protocols incorporated into equipment operating in the band. Though a strong indicator of the band’s success, congestion in the 3.65 GHz band has increased steadily since the band was made available for licensing five years ago. API previously called for the Commission to introduce coordination standards in order to increase the utility of the 3.65 GHz band. The additional spectrum combined with the protections afforded under the Priority Access tier should result in significant public interest benefits.

API agrees with the comments of the Utilities Telecom Council, the Edison Electric Institute, and the National Rural Electric Cooperative Association that the Commission should strike a balance in making sure that the class of critical facilities eligible for the Priority Access tier is large enough to create economies of scale necessary to drive equipment development, but not so large that “quality of service might be jeopardized by congestion and interference among Priority Access tier users.”<sup>2</sup> In that regard, API strongly urges the Commission to include oil and natural gas industry exploration, production, transportation and refining facilities within the group eligible for the Priority Access tier.

---

<sup>2</sup> See Comments of the Utilities Telecom Council, the Edison Electric Institute and the National Rural Electric Cooperative Association at 13.

The oil and natural gas industry unquestionably falls into the category of users with “critical quality-of-service needs.” The Commission has recognized that the oil and natural gas industry falls squarely within the category of users defined as “Critical Infrastructure Industry” companies.<sup>3</sup> For example, in the context of 800 MHz rebanding, the Commission defined CII as entities, including pipelines, that operate public safety radio services, stating that “*the very nature of the services provided by [CII] entities involves potential hazard to life and property... CII entities often work hand in hand with public safety officials at the scene of an incident,*” and “*reliable CII radio communications have long proven essential in speeding recovery from natural or man-made disasters.*”<sup>4</sup> In its proceeding studying the impact of Hurricane Katrina on communications networks, the Commission recognized the need for robust and redundant CII systems during emergencies,<sup>5</sup> as well as the critical services that CII entities provide in post-disaster situations.<sup>6</sup>

In addition, oil and natural gas industry companies have a distinct need for reliable, prioritized access to broadband spectrum at specific, localized facilities. Whereas commercial service providers may provide coverage across large geographic areas in order to serve the general population, oil and natural gas companies for the most part seek to provide coverage,

---

<sup>3</sup> See 47 C.F.R. 90.7 (defining Critical Infrastructure Companies as “State, local government, and non-government entities, including utilities, railroads, metropolitan transit systems, pipelines, private ambulances, volunteer fire departments, and not-for-profit organizations that offer emergency road services providing private internal radio services provided these private internal radio services are used to protect safety of life, health or property, and are not made commercially available to the public.”).

<sup>4</sup> *Id.*

<sup>5</sup> *Id.*

<sup>6</sup> See Recommendations of the Independent Katrina Panel Reviewing the Impact of Hurricane on Communications Networks, EB Docket No. 06-119, FCC 06-83 at 5 (2006) Reciting the Independent Katrina Panel’s recommendations that the Commission encourage regional, state and local emergency operating centers and the Joint Field Office to “*facilitate electric and other utilities’ maintenance of priority lists for commercial power restoration.*”

both indoor and outdoor, to geographic areas in which the company owns rights to underlying real property – either outright or through lease or right-of-way. These are specific, identifiable areas that may remain static for decades.

API strongly supports the Commission’s proposed allocation of the 3550-3650 MHz band to the Citizens Broadband Service and believes that the band would be an extremely useful tool for mission critical oil and natural gas industry operations.

### **III. Any Transition of the 3.65 GHz Band to the new 3550-3650 MHz Licensing Scheme Must Take Into Account the Investments Made By Current 3.65 GHz Licensees.**

The Commission seeks comment on a supplemental proposal to include the 3.65 GHz band into the proposed regulatory scheme for the 3550-3650 MHz band. API generally agrees with the Commission that including all 150 MHz of spectrum as one contiguous band should result in a more robust market for equipment and more efficient spectrum utilization. In addition, introduction of tiered licensing in the 3.65 GHz band could mitigate certain congestion issues being experienced by critical infrastructure companies. API also agrees with the Wireless Internet Service Providers Association that the Commission should consider whether use of the proposed Spectrum Access System would allow for increased power limits and elimination of the requirement that fixed end user locations be registered, both of which would provide significant benefits to 3.65 GHz band users.<sup>7</sup>

API is concerned, however, that migration of the 3.65 GHz band to a new radio service is being proposed at a time when the band is barely five years old and is still developing. Many of API’s members have very recently made investments in the 3.65 GHz band. In addition, several current 3.65 GHz band licensees have entered into agreements with grandfathered FCC earth

---

<sup>7</sup> See Comments of the Wireless Internet Service Providers Association at 20.

station licensees to operate within the 150 km protection zone provided in the Commission's rules.<sup>8</sup>

API recommends that the Commission retain the 3.65 GHz band allocation in Part 90 of its rules, but provide that after a suitable interim period new equipment will not be certified except under the Citizens Broadband Service. Existing equipment would be grandfathered and 3.65 GHz band licensees would be required to register sites in the Spectrum Access System, where they would be treated as General Access tier users. Over time, market forces will determine whether 3.65 GHz band licensees migrate voluntarily from Part 90 to the Citizens Broadband Service. Such migration will be incentivized by equipment availability. If the Commission does decide to include a sunset date for existing 3.65 GHz band equipment, it must be sufficiently long so as to allow companies to realize their investments in the band (*e.g.*, at least 10-15 years).

#### **IV. API Supports the Recommendations that C-Band Satellite Networks Serving The Gulf of Mexico Should Be Protected from Interference.**

In its Comments in this proceeding, Harris Corporation ("Harris") points out that its wholly-owned subsidiary Harris CapRock uses C-Band satellite facilities to provide critical offshore communications services to oil and gas industry companies operating in the Gulf of Mexico.<sup>9</sup> Harris states that such systems "represent the kind of safety-of-life applications that the NPRM identifies as worthy of [interference] protection" and that such systems "require protection from interference caused by General Authorized Access Tier operators."<sup>10</sup> In order to ensure such systems are protected, Harris "urges the Commission to extend Priority Access

---

<sup>8</sup> Regardless of the rules adopted, the Commission should make clear that such agreements will not be impacted by any transition of the 3.65 GHz band.

<sup>9</sup> Harris Corporation Comments at 1.

<sup>10</sup> Harris Corporation Comments at 5.

and Priority Use Zones to vital satellite communications systems operating in the C-Band in the Gulf of Mexico.”<sup>11</sup>

API agrees with Harris on the need to protect offshore C-Band satellite systems from General Authorized Access Tier operators and the proposal to extend Priority Access and Priority Use Zones to cover such systems. Although API strongly supports the Commission’s efforts to allocate new spectrum for broadband, the Commission must operate from the standpoint of “first, do no harm.” Satellite communications are widely used in the Gulf of Mexico to support the search for, production, and pipeline transportation of oil and natural gas because of the lack of available communications infrastructure. The facilities licensed to and used by API’s members are therefore essential to the provision of our nation’s energy sources. The Commission must ensure that such mission critical communications facilities are protected from interference from otherwise secondary General Access tier Citizens Broadband Service devices deployed by the general public.

---

<sup>11</sup> *Id.*



## **V. CONCLUSION**

API urges the Commission to adopt rules for the Citizens Broadband Service consistent with these Reply Comments.

Respectfully submitted,

AMERICAN PETROLEUM INSTITUTE

By:      /s/       
Jack Richards  
Greg Kunkle

Keller and Heckman LLP  
1001 G St., N.W.  
Suite 500 West  
Washington, DC 20001  
(202) 434-4100  
Its Attorneys

April 5, 2013